WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: NY1921

Title: Best Management: Transforming Principles into Practice in New York Greenhouses

Focus Categories: Agriculture, Water Quality

Keywords: Agricultural Environmental Management, Agriculture, Greenhouses, Nonpoint sources

Start Date: 03/01/2001

End Date: 02/28/2002

Federal Funds: $4,000

Non-Federal Matching Funds: $7,729

Congressional Districts: 26, 27

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Abstract

Problem: Many of the 1100 commercial greenhouse operations in New York State discharge wastewater directly to the ground surface or through drains to surface water. Greenhouse wastewaters are likely to contain some contamination from the legal and appropriate use of pesticides and fertilizers in the greenhouses. In a number of counties in New York, the protection of groundwater from agricultural pollution is a key issue. Studies of drainage from Cornell University's research greenhouses indicate that nutrients may be more likely to contaminate wastewaters than pesticides. These studies did not identify any pesticides above detection limits. However, trace amounts of some metals were found, and nitrate and phosphorus were identified at levels of possible concern.

Objectives: The project will satisfy three primary objectives: Develop the Best Management Practices for commercial greenhouses in New York Teach horticulture students and CCE educators how to evaluate current practices Reach industry leaders to enlist their support to increase adoption of BMP principles

Methods: The project will pursue six activities:

I. Coalition building: We will form an Environmental Stewardship Alliance to establish communication among industry stakeholders, CCE, the principal investigators and horticulture students.

II. On campus: Eight to twelve horticulture students (HORT 410) will be trained in a classroom setting using the Cornell University research BMPs as a model.

III. At participating commercial greenhouses: Site visits to commercial greenhouse growers in the Southern Tier and Western regions will be conducted by a team including a CCE educator, one of the principal investigators, and one or more students.